Final Abstract Number: 47.043
Session: Tuberculosis & Other Mycobacterial Infections
Date: Friday, June 15, 2012
Time: 12:45-14:15
Room: Poster & Exhibition Area

Persistent *Mycobacterium seoulense* pulmonary disease

T. Sungkapalee[1,*], R.T. Ellison 3rd[1], B.A. Brown-Elliott[2], R. Vasireddy[2], R.J. Wallace Jr[2]

[1] *University of Massachusetts Medical School, Worcester, MA, USA*
[2] *University of Texas Health Science Center at Tyler, Tyler, TX, USA*

Background: *Mycobacterium seoulense* is a slowly growing scotochromogenic organism identified in 2005 from the sputum sample of a Korean patient with pulmonary symptoms. We report a case of persistent pulmonary infection due to this organism.

Methods: Case presentation: A 61 year-old non-smoking Chinese woman who had moved to the United States 11 years earlier, presented in 2006 with non-productive cough and weight loss for 3 years. She had received a 6 month course of treatment for pulmonary tuberculosis in Fujian province, China in 2005 during a return visit there. Diagnostic imaging demonstrated bilateral bronchiectasis, nodularity, focal areas of bronchopneumonia and apical fibrosis. Sputum acid fast bacilli stain was positive, and culture grew a slowly growing scotochromogenic organism identified as *Mycobacterium scrofulaceum* by conventional biochemical methods. The patient was treated briefly with isoniazid, rifampin, ethambutol, pyrazinamide, and levofloxacin until *Mycobacterium tuberculosis* was excluded. She represented in 2008 with spontaneous pneumothorax, worsening cavitary lesions, and bronchiectasis. Multiple sputum cultures grew an unidentifiable slowly growing scotochromogenic mycobacterium susceptible to rifampin, ethambutol, amikacin, and clarithromycin. Treatment was given with clarithromycin, ethambutol, and aerosolized amikacin therapy for 12 months with clearance of sputum cultures on therapy. Four months later sputum samples grew both a *Mycobacterium chelonae* isolate and the same unidentified mycobacterium resistant to ethambutol but susceptible to moxifloxacin, amikacin, and trimethoprim-sulfamethoxazole. Treatment with these 3 agents cleared sputum cultures in 8 weeks, and was continued for 12 additional months. Follow-up sputum cultures were negative at 2 and 8 months after therapy, but have now regrown the slowly growing mycobacterium 11 months later. Sequencing of the internal transcribed spacer (ITS) region and 16S rRNA gene of a 2009 isolate of the organism has identified it as *Mycobacterium seoulense.*

Conclusion: This is the second reported case of *Mycobacterium seoulense* pulmonary infection, and confirms that this pathogen can cause severe pulmonary disease. Both reported cases are from patients who lived in East Asia suggesting a possible geographic focus. Although the organism appears susceptible to a number of agents, optimal treatment is not clear as relapses occurred twice in this patient.

http://dx.doi.org/10.1016/j.ijid.2012.05.977

Final Abstract Number: 47.044
Session: Tuberculosis & Other Mycobacterial Infections
Date: Friday, June 15, 2012
Time: 12:45-14:15
Room: Poster & Exhibition Area

Mycobacterium haemophilum cutaneous infection in immunocompromised patients, 5-case report from a tertiary hospital, Bangkok, Thailand

T. Tangkosakul*

Lerdsin Hospital, Bangkok, Thailand, Bangkok, Thailand

Background: *M. haemophilum* is one of non-tuberculous mycobacteria causing cutaneous infection. Since acid fast staining of tissue cannot differentiate between non-tuberculous mycobacteria and *Mycobacterium tuberculosis*, special conditions culture and molecular technique is required for identifying organisms such as *M. haemophilum*, and *M. marinum*. The aim of these case reports is to demonstrate that *M. haemophilum* cutaneous infection in Thailand is not low as previously believe if the proper diagnostic processes have been performed.

Methods: A retrospective chart review of five patients who were diagnosed *M.haemophilum* cutaneous infection, most were located on extremities. In all cases, the results of conventional mycobacterium culture were negative. However, *M.haemophilum* were detected by incubation temperature were changed to 30 °C and iron supplement were added into the media. All cases were confirmed with DNA sequencing and with restriction enzyme analysis (PCR-REA) of PCR product in one case.

Results: Between 2006 and 2009, five patients with *M. haemophilum* infection were diagnosed in Ramathibodi Hospital, a tertiary care center in Bangkok, Thailand. The patients' age was aged 3,29,47,75 and76 years old. One has HIV–infection, three patients who are taking immunosuppressive drugs for systemic lupus erythematosus, rheumatoid arthritis, myasthenia grevis**.** Most of the patients presented with subacute cutaneous infection on the extremities which was refractory to antibiotics. *M. marinum*, *M. haemophilum* were suspected due to the preference for cutaneous infections .The special condition cultured, thereby, were performed by decreasing the incubation temperature around 30 o C with iron supplement. Direct DNA sequencing were done. In one case the additional test was done by Polymerase chain reaction follow by restriction enzyme analysis (PCR-REA). Drug susceptibility was successfully determined in three cases. Of these, all were susceptible to isoniazid, rifampicin, ofloxacin, and clarithromycin but resistant to ethambutol. Patient who has HIV-infection died before definite treatment. Two patients received clarithromycin/ azithromycin, rifampicin, and ciprofloxacin. Two cases continued less than two susceptible drugs and improved.

Conclusion: Since acid fast staining cannot differentiate between non-tuberculous mycobacteria and *Mycobacterium tuberculosis* infection. Culture should be performed by special conditions *and*Molecular technique is of value in this circumstance.

http://dx.doi.org/10.1016/j.ijid.2012.05.978